

B2 - a hardener.

REMARKS

The present response amends claim 1 and the specification, and requests reconsideration of the rejected claims. A Marked Version of the amendments is attached.

Claims 1, 3-7, 11 and 12 are rejected under 35 U.S.C. 112, second paragraph. The present response amends claim 1 to recite specific characteristics of the reactive diluent pursuant to 37 CFR 1.116 to comply with a requirement of form set forth in the Office Action. The amendment is supported by the specification, e.g., page 5, lines 8-14. Entry of the amendment to claim 1 is, thus, requested.

Claims 1, 4, 6, 11 and 12 are rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Yamaki et al. Claim 2 is rejected under 35 U.S.C. 102(e) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as allegedly being obvious over Yamaki et al. Claim 5 is rejected under 35 U.S.C. 103(a) as allegedly being obvious over Yamaki et al. Claims 1-4, 6, 11 and 12 are rejected under 35 U.S.C. 102(e) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as allegedly being obvious over Yabuta et al. These rejections are respectfully traversed.

It is submitted that preparing the acrylic polymer in the presence of the reactive diluent forms a different product than if the acrylic polymer is simply mixed with a reactive diluent. This is shown by the accompanying Rule 132 Declaration which is submitted in response to the statements made in the Office Action and, thus, consideration thereof is requested.

In summary, the accompanying Rule 132 Declaration demonstrates that higher gloss retention and hardness values are obtained when the coating composition includes a polymer made by polymerising in the presence of a reactive diluent which is capable of reacting with a curing agent to form a polymer network, as claimed, than when the coating includes a polymer made by polymerising in the presence of a diluent which is not capable of reacting with a curing agent to form a polymer network, and simply mixed with a reactive diluent of the claimed invention.

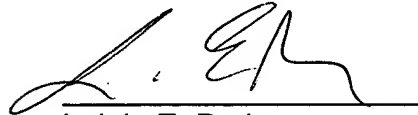
Specifically, polymers (i) and (ii) are made by polymerising in the presence of a reactive diluent which is capable of reacting with a curing agent to form a polymer network, as claimed. Declaration pages 1 and 2. Polymer (i) is included in pigmented film A. Declaration page 3. On the other hand, comparison pigmented film B includes polymer (iii) which is polymerised in the presence of a diluent which is not capable of reacting with a curing agent to form a polymer network. Declaration page 2. However, a reactive diluent, in accordance with the claimed invention, is mixed in with the polymer when making the coating composition. Declaration page 4. As shown in Table 1, the gloss retention of pigmented film A, according to the claimed invention, is much higher than that of comparison pigmented film B. For example, after 49 hours pigmented film A has a gloss retention of 100, while B's is only 85. After 986 hours, A maintains a high gloss retention of 99, while B's drops to 78. Declaration page 6.

The higher hardness values of the claimed coating composition are demonstrated in Table 2. Declaration page 6. There, polymer (i) and polymer (ii) are respectively utilized in making unpigmented films C and D. Declaration pages 4-5. In contrast, comparative unpigmented films E and F are made using polymer (iii) and, respectively, have been mixed with the reactive diluent used to polymerise polymer (i) and the reactive diluent used to polymerise polymer (ii). Declaration page 5. After one week, film C had a hardness value of 64 compared with comparative film E which had 39. After 4 weeks, the values were 93 versus 53.

Similarly advantageous results were found when comparing film D and comparative film F.

The coating, as claimed, is, thus, different and withdrawal of the rejections is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'L. E. Parker', is written over a horizontal line.

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Encl: Rule 132 Declaration; Marked Version

MARKED VERSIONIN THE SPECIFICATION:

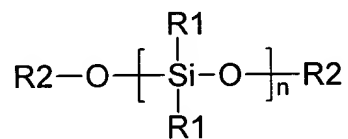
Please amend page 6, lines 1-14, as follows:

Very good results are achieved when the glycidyl-functional acrylic polymer is obtained by polymerising a mixture comprising glycidyl methacrylate and butyl acrylate in the polysiloxane that is also present in the coating composition. Optionally, the mixture further comprises methyl methacrylate and/or other acrylic monomers. In general, it can be said that good results are achieved when the mixture comprises 5 -60% by weight of glycidyl methacrylate, 0 - 60% by weight of methyl methacrylate, and 10 - 80% by weight of butyl acrylate, better results are achieved when the mixture comprises 18 - 55% by weight of glycidyl methacrylate, 0 - 45% by weight of methyl methacrylate, and 25 - 70% by weight of butyl acrylate, and optimum results are achieved when the mixture comprises 40 - 50% by weight of glycidyl methacrylate, 0 - 15% by weight of methyl methacrylate, and 50 - 60% by weight of butyl acrylate, wherein the % by weight is calculated based on the total amount of olefinically unsaturated monomers present in the mixture before the start of the polymerisation reaction. For example, the mixture can comprise 15 -75% by weight of glycidyl methacrylate, 0 - 60% by weight of methyl methacrylate, and 10 - 85% by weight of butyl acrylate.

IN THE CLAIMS:

Please amend claim1 as follows:

1. (Twice amended) Ambient temperature curing coating composition comprising



- a polysiloxane having the formula

wherein each R1 is selected from the group consisting of alkyl, aryl, and alkoxy groups having up to six carbon atoms, reactive glycidoxy groups, and Si(OR3)₃ groups, wherein each R3 independently has the same meaning as R1, each R2 is selected from the group consisting of hydrogen and alkyl and aryl groups having up to six carbon atoms, and wherein n is selected so that the molecular weight of the polysiloxanes is in the range of from 500 to about 2,000,

- a glycidyl-functional acrylic polymer obtained by polymerisation in the presence of a reactive diluent, the reactive diluent being capable of reacting with a curing agent to form a polymer network, and
- a hardener.